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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,573	06/03/2005	Frank William Wallace	SN134 PCT 1	4536

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EXAMINER

LOEWE, ROBERT S

ART UNIT	PAPER NUMBER
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1796

NOTIFICATION DATE	DELIVERY MODE
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01/03/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents.admin@dowcorning.com

Office Action Summary	Application No. 10/537,573	Applicant(s) WALLACE ET AL.	
	Examiner Robert Loewe	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Applicant's arguments/remarks, received on 11/19/07 have been acknowledged.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dalle et al. (US Pat. 6,248,855) in view of Schirosi et al. (WO 02/42360), and as evidenced by Singh et al. (US Pat. 6,479,610)

Claims 1 and 3: Dalle et al. teaches a process for the preparation of an emulsion of an organofunctional polysiloxane comprising mechanically emulsifying (6:31) a silanol-functional polysiloxane (I) (6:18-20, 25-28) in water (6:12) in the presence of a catalyst (3:66-4:6), such as dimethyltin neodecanoate (6:22-23), adding an organofunctional silane satisfying the structural limitations of formula (II) of instant claim 1 (3:21-65 and 6:21) and causing reaction of the silanol groups of (I) with the -OR groups of (II). Dimethyltin neodecanoate is recognized as being a neutral condensation catalyst as evidenced by Singh et al. (2:55-60). Dalle et al. further teaches that the starting ingredients can be mixed all at once or in any order, provided that water is the last component (6:8-11).

Dalle et al. therefore does not teach that the organofunctional (II) silane is added to the mechanical emulsion of component (I) in water. However, Schirosi et al. does teach a process for making silicone emulsions in which mechanical emulsions of polysiloxanes having

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functional groups at the chain ends (paragraph 0010 and 0036-0037) are reacted with various chain extension agents such that said chain extension agents are added after the mechanical emulsion is produced (paragraph 0039) and also after the mixture has undergone dilution (paragraphs 0022, 0036 and 0039). Dalle et al. and Schirosi et al. are combinable because they are from the same field of endeavor, namely, mechanical emulsions of polysiloxanes. At the time of the invention, a person having ordinary skill in the art would have found it obvious to employ the reaction chemistry of Dalle et al. following the procedure as taught by Schirosi et al. and would have been motivated to do so because Dalle et al. suggests that the emulsification can be accomplished in a number of ways including the use of a colloid mill or line mixer, which are necessary components in the continuous process of Schirosi (paragraph 0026).

Claim 2: Dalle et al. further teaches that the silanol-functional polysiloxane (I) can be emulsified in the presence of a non-ionic surfactant (4:57-61).

Claims 4-6: Dalle et al. further teaches that the chain extender/organofunctional silane is 3-aminopropyltrimethoxysilane (3:54).

Claim 9: Dalle et al. further teaches that the reaction is carried out at 40 °C (6:30).

Claims 10 and 11: Dalle et al. does not teach any cyclic polysiloxane starting materials, therefore Dalle et al. inherently teaches that there is less than 2% by weight cyclic polysiloxane based on the total weight of the polysiloxane in the emulsion.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dalle et al. (US Pat. 6,248,855) in view of Schirosi et al. (WO 02/42360), as applied to claim 1 above, further in view of Schiller et al. (US Pat. 4,191,817).

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Dalle et al. and Schirosi et al. collectively teach the process for preparing silicone emulsions as described in instant claim 1 above. Dalle et al. does not teach that a basic condensation catalyst may be used to catalyze the condensation between the silanol and the alkoxy groups of the silane coupling agent/chain extender. Dalle et al. explicitly teaches organotin salts such as dibutyltin dilaurate (4:1-2) and not basic catalysts. However, Schiller et al. does teach that sodium hydroxide (a basic condensation catalyst) and dibutyltin dilaurate are functionally equivalent as condensation catalysts for the reaction of silanol terminated polysiloxanes and alkoxysilane coupling agents (5:24-39). The courts have stated that it is *prima facie* obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 340. See MPEP 2144.06. The express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532. In the instant case, a person having ordinary skill in the art would have appreciated various alternative catalysts for condensation between silanol and siloxy groups and would have recognized that the condensation reaction of Dalle et al. is not limited only to organotin catalysts. Further, a person of ordinary skill in the art would have a reasonable expectation of success given that Schiller et al. teaches the functional equivalency of both organotin catalysts and basic catalysts, specifically, dibutyltin dilaurate and sodium hydroxide.

Response to Arguments

Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

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References Cited

The prior art made of record and not relied upon but is considered pertinent to Applicant's disclosure can be found on the attached PTO-892 form.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Loewe whose telephone number is (571) 270-3298. The examiner can normally be reached on Monday through Friday from 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RSL
14-Dec-07


MARK EASHOO, PH.D.
SUPERVISORY PATENT EXAMINER

26/Dec/07